ENGINEERING: MANUFACTURING SYSTEMS ENGINEERING, M.ENG.

This is a named option within the Engineering M.Eng (http://guide.wisc.edu/graduate/engineering-college-wide/engineering-meng).

The named option Manufacturing Systems Engineering is an online master’s degree program designed to prepare participants to lead their manufacturing operations into the future. Students will gain cross-functional expertise to drive creative product and process improvement leveraging advanced tools, technologies, and automation systems.

The degree offers students a chance to:

• Analyze, compare, and contrast technical and business systems to optimize their operation
• Learn how to simulate production processes and evaluate large data sets to identify areas of improvement and develop long-term strategies
• Solve problems and drive innovation to remain competitive
• Understand new automation and smart manufacturing technologies that will change the manufacturing processes and positively affect the business

ADMISSIONS

The degree may be earned by engineers who have:

• A B.S. degree in engineering from an ABET-approved program
• A minimum undergraduate grade-point average (GPA) of 3.00 on the equivalent of the last 60 semester hours (approximately two years of work) or a master’s degree with a minimum cumulative GPA of 3.00.

Interested applicants with B.S. degrees in related fields should contact the graduate programs coordinator for more specific admission information at gradadmissions@epd.wisc.edu. For more details, see the program website. (https://epd.wisc.edu/online-degree/manufacturing-systems-engineering)

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (https://grad.wisc.edu/admissions).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (https://grad.wisc.edu/funding) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in the Engineering M.Eng. programs are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments that would result in a tuition waiver. Students in these programs cannot enroll in other graduate programs nor take courses outside the prescribed curriculum. If you intend to combine study in this program with other academic programs at UW–Madison, please contact Shainah Greene, graduate programs coordinator (shainah.greene@wisc.edu).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (http://guide.wisc.edu/graduate/#policiesandrequirementstext), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

<table>
<thead>
<tr>
<th>Mode of Instruction</th>
<th>Face to Face</th>
<th>Evening/Weekend</th>
<th>Online</th>
<th>Hybrid</th>
<th>Accelerated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Mode of Instruction Definitions

• **Evening/Weekend**: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

• **Online**: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

• **Hybrid**: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

• **Accelerated**: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

<table>
<thead>
<tr>
<th>Credit Requirement</th>
<th>Minimum Credit</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>30 credits</td>
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</table>

<table>
<thead>
<tr>
<th>Credit Requirement</th>
<th>Minimum Credit</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>16 credits</td>
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</tbody>
</table>
Minimum Graduate Coursework Requirement

Half of degree coursework (at least 15 credits out of 30 total credits) must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).

Overall Graduate GPA Requirement

3.00 GPA required.

Other Grade Requirements

Must retake any courses for which a grade below C is recorded.

Assessments and Examinations

No formal examination required.

Language Requirements

No language requirements.

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>E P D 518</td>
<td>Quality Engineering and Quality Management</td>
<td>3</td>
</tr>
<tr>
<td>E P D 611</td>
<td>Engineering Economics and Management</td>
<td>3</td>
</tr>
<tr>
<td>E P D 612</td>
<td>Technical Project Management</td>
<td>3</td>
</tr>
<tr>
<td>I S Y E 412</td>
<td>Fundamentals of Industrial Data Analytics</td>
<td>3</td>
</tr>
<tr>
<td>I S Y E 615</td>
<td>Production Systems Control</td>
<td>3</td>
</tr>
<tr>
<td>I S Y E/M E 641</td>
<td>Design and Analysis of Manufacturing Systems</td>
<td>3</td>
</tr>
<tr>
<td>M E 601</td>
<td>Special Topics in Mechanical Engineering (Topic: Smart Manufacturing)</td>
<td>3</td>
</tr>
<tr>
<td>OTM/ MARKETNG 722</td>
<td>Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

1. Students choose elective courses in consultation with advisor.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (https://grad.wisc.edu/acadpolicy) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://uwmadison.box.com/s/lfe11kgvrls46lozmn64h5gupu39vcz8) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master’s degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Up to 7 credits numbered 300 or above can be counted toward the minimum graduate degree credit requirement. Up to 7 credits of courses numbered 600 or above can be counted toward the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master’s degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count up to 9 credits of coursework numbered 300 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement, and up to 15 credits of courses numbered 700 or above taken as a UW–Madison Special student toward the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master’s degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students have both a plan advisor and academic advisor (typically the program director or academic director for each program); programs without a fixed curriculum are required to meet with their advisor to outline an approved plan of study by the end of their first academic term.

CREDITS PER TERM ALLOWED

15 credits
TIME CONSTRAINTS
Master’s degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER
Students enrolled in these programs are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments that would result in a tuition waiver. Students in these programs cannot enroll in other graduate programs nor take courses outside the prescribed curriculum. If you intend to combine study in this program with other academic programs at UW–Madison, please contact Engineering Professional Development’s Student Services (studentservices@epd.wisc.edu)

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES
Take advantage of the Graduate School’s professional development resources (https://grad.wisc.edu/pd) to build skills, thrive academically, and launch your career.